

## Unit of Study

**Unit Title:** How does your Ecosystem grow?

**Length of Unit:** 6-8 days

**Cheryl May and Kari Jo Booe**

**Lebanon Middle School**

**Organizer:** Population is related to the amount of components of habitat.

### **Essential Questions: (3-5)**

1. What do organisms require to function?
2. How do biotic and abiotic factors affect ecosystems?
3. How are organisms linked together through eating habits?

### **Standards:**

#### ➤ ➤ **Academic Expectations –**

#### **2.5**

Students understand that under certain conditions nature tends to remain the same or move toward a balance.

#### ➤ ➤ **Program of Studies-**

#### S-6-LS-3

Students will observe populations and determine the functions (e.g., decomposers, producers, consumers) they serve in an ecosystem.

#### S-6-LS-4

Students will investigate energy flow in ecosystems.

#### S-6-LS-5

Students will investigate factors (e.g., resources, light, water) that affect the number of organisms an ecosystem can support.

#### ➤ ➤ **Core Content-**

**SC-M-3.5.1** A population consists of all individuals of a species that occur together at a given place and time. All populations living together and the physical factors with which they interact compose an ecosystem.

**SC-M-3.5.2** Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers because they make their own food. All animals, including humans, are consumers, and obtain their food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.

**SC-M-3.5.3** For most ecosystems, the major source of energy is sunlight. Energy entering ecosystems as sunlight is transferred by producers into chemical

energy through photosynthesis. That energy then passes from organism to organism in food webs.

SC-M-3.5.4

The number of organisms an ecosystem can support depends on the resources available and the abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

➤ ➤ **National Standards-**

**NSS8\_3.17**

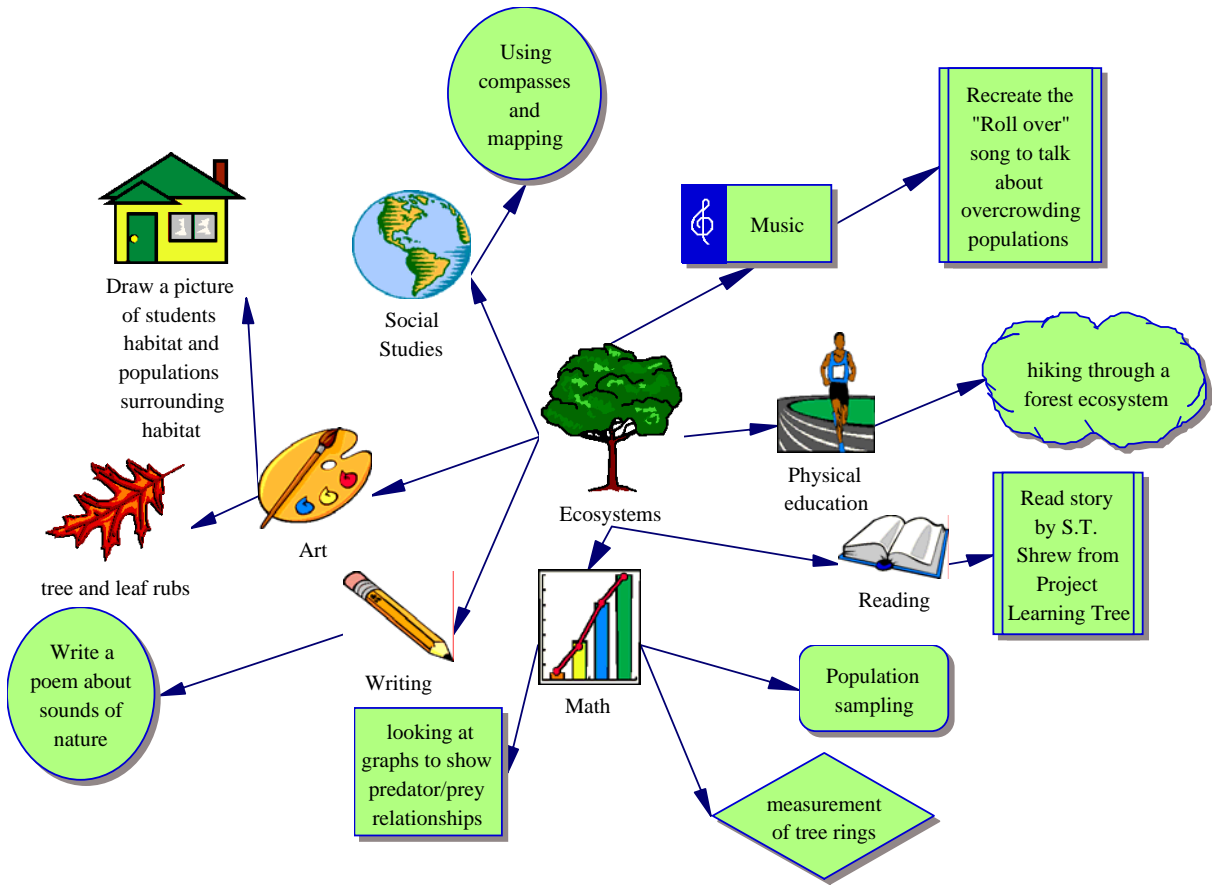
Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers--they make their own food. All animals, including humans, are consumers, which obtain food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.

**NSS8\_3.18**

For ecosystems, the major source of energy is sunlight. Energy entering ecosystems as sunlight is transferred by producers into chemical energy through photosynthesis. That energy then passes from organism to organism in food webs.

**NSS8\_3.19**

The number of organisms an ecosystem can support depends on the resources available and abiotic factors, such as quantity of light and water, range of temperatures, and soil composition. Given adequate biotic and abiotic resources and no disease or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.



**Culminating Performance: Kentucky Farm Bureau sponsored “Forest Health” transactive writing piece**

**Culminating Performance Rubric: Rubric based on the KFB scoring guidelines**

**Name** Cheryl May & Kari Jo Booe

**Grade Level** Middle School

**Date** Fall 2004

**Content/Subject** Life Science: Ecosystems

**Unit Title** How does your Ecosystem Grow?

**Lesson:** Habitats

**Objectives:**

Students will draw a detailed picture of their home, yard and the organisms in the area. They will then identify the habitats and the different number of organisms (populations). The class will then piece each individual picture together to look at and identify the community.

**Targeted Standards for this Lesson:**

➤ ➤ **Academic Expectations-**

**2.3**

Students identify and analyze systems and the ways their components work together or affect each other.

**2.4**

Students use the concept of scale and scientific models to explain the organization and functioning of living and nonliving things and predict other characteristics that might be observed.

➤ ➤ **Program of Studies –**

**S-6-LS-3**

Students will observe populations and determine the functions (e.g., decomposers, producers, consumers) they serve in an ecosystem.

➤ ➤ **Core Content –**

**SC-M-3.5.1**

A population consists of all individuals of a species that occur together at a given place and time. The physical factors with which they interact compose an ecosystem.

➤ ➤ **National Standards –**

### **NSS8\_3.17**

Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers--they make their own food. All animals, including humans, are consumers, which obtain food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.

**Context:** This is an introductory lesson to the Ecosystem Unit. Students have previous knowledge of the major organisms that make up the six kingdoms. This activity will lead to investigations into the effects of biotic and abiotic factors on populations.

**Resources/Materials:** 4 x 6 pieces of white paper, colored pencils, tape, pictures of habitats and various populations, life science text book

**Procedures:** (include Beginning Review; Anticipatory Set; Concept Development; Guided Practice; Independent Practice; Ending Review)

1. **Bell ringer:** A mushroom, coccus bacterium, paramecium, crabgrass, and you all have something in common. What is it?
2. **Review:** Discuss bell ringer having students recall the term organism. Have students classify the various organisms into one of the five represented kingdoms recalling information from the last unit. Discuss what kingdoms are present and how we classified.
3. **Lesson:** Have students draw a detailed picture home and include the yard and any organisms from the kingdoms they have seen. Ask them to name examples from the kingdoms present in their yard. Introduce the vocabulary words: habitat, population, and community. Hold up some examples of habitat, population, and community and have students classify them.
4. **Guided Practice:** The students will share the examples of habitat in their home drawings, then list the various populations, and finally tape the pictures together and view and point out the community formed by multiple habitats being combined.
5. **Independent Practice:** Students will look at the life science textbook example and write down the various populations present and identify any habitats.
6. **End Review:** Students will look at the specimens from the opening kingdom review and discuss where their natural habitat is located and how many different populations are present in this activity.

**Student Assessment:** (include formative and summative)

1. The notebooks will be checked for correct bell ringer responses and correct classification of organisms to check for individual learning and retention of previously taught material.
2. Student responses to identifying habitats and populations in their drawings will identify misconceptions or comprehension of newly introduced vocabulary.
3. The independent practice responses will give insight as to whether any misconceptions have been replaced by knowledge of the topic.

4. Summative assessment will occur in the form of CTBS like multiple choice questions and one KCCT like open response on the final test.

**Adaptations:** (include ways you will address diversity to ensure learning by all students)  
Students with IEP's and 504's

- Will have a lab partner to aid in the completion of activities.
- Will have additional re-teaching opportunities with the resource teacher or an instructional aide.
- Will receive fewer application type multiple choice questions on the summative assessment.

Limited English Speaking Students

- Will receive fewer vocabulary words.
- Will learn the Spanish and English word for the Spanish definitions for testing.
- Will have matching type test that matches the English word to the Spanish definition.
- Will have an English-speaking student that is higher level and the help of an aide.

**Name** Cheryl May & Kari Jo Booe

**Grade Level** Middle School

**Date** Fall 2004

**Content/Subject** Life Science: Ecosystems

**Unit Title** How does your Ecosystem Grow?

**Lesson:** Habitat Lap sit

**Objectives:** Students will identify the components of habitat, recognize how humans and other animals depend upon habitats, and interpret the significance of loss or change in habitat in terms of people and wildlife.

**Targeted Standards for this Lesson:** (see unit Standards)

➤ ➤ **Academic Expectations-**

**2.4**

Students use the concept of scale and scientific models to explain the organization and functioning of living and nonliving things and predict other characteristics that might be observed.

**2.5**

Students understand that under certain conditions nature tends to remain the same or move toward a balance.

**2.6**

Students understand how living and nonliving things change over time and the factors that influence the changes.

➤ ➤ **Program of Studies –  
S-6-LS-5**

Students will investigate factors (e.g., resources, light, water) that affect the number of organisms an ecosystem can support.

➤ ➤ **Core Content –  
SC-M-3.5.4**

The number of organisms an ecosystem can support depends on the resources available and abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

➤ ➤ **National Standards –  
NSS8\_3.19**

The number of organisms an ecosystem can support depends on the resources available and abiotic factors, such as quantity of light and water, range of temperatures, and soil composition. Given adequate biotic and abiotic resources and no disease or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

**Context:**

Students have learned a basic definition of population and habitat and how the two are related. This lesson will demonstrate how various factors can influence a habitat and expand the definition to include the components of a habitat.

**Resources/Materials:**

Project Wild page 61 “Habitat Lap Sit”

**Procedures:** (include Beginning Review; Anticipatory Set; Concept Development; Guided Practice; Independent Practice; Ending Review)

1. **Bell ringer:** Pick an animal, describe its habitat, and tell what is the importance of their home.
2. **Review:** Call on a student to share and listen for key concepts that have been previously taught. The students will recall the 2 main needs of all living things from the previous unit (food and water). Then by discussing and describing their habitat from the bell ringer, they will realize the other main needs for survival. Which are the parts of habitat; food, water, shelter, and space.
3. **Guided Practice:** Students will be introduced to the vocabulary; limiting factor, abiotic factor, and biotic factor. The class will discuss examples of each factor. Students will then participate in the activity, “Habitat Lap Sit”, to model the importance of the parts of the habitat and the limiting factors that can affect it on the whole. When the group falls, the person responsible for the destruction of the habitat will tell what factor affected their piece. For example, if the student

- represents water and they fall first it would be their job to tell the group that there was a drought or flood or other factor that helped hurt this part of the habitat. The other students will then join in by explaining what happened to their part when the water was affected to show the relationship of all parts.
4. **Independent practice:** Students will recall the activity and answer questions that check for learning and application of the terms that were introduced.
  5. **End review:** Discussion of the hurricanes that have currently battered the coast of Florida and what limiting factors may be related to this natural disaster and how this affects the habitat and the various populations, including the human population, living in this environment.

**Student Assessment:** (include formative and summative)

1. The notebooks are checked for correct bell ringer responses and correct identification of a habitat and its' importance.
2. Student ability to identify a limiting factor that has affected their component of the habitat and identify this factor as abiotic or biotic will identify comprehension of newly introduced vocabulary.
3. The independent responses will determine level of comprehension of the topic.
4. Summative assessment will occur in the form of CTBS like multiple choice questions and one KCCT like open response on the unit test.

**Adaptations:** (include ways you will address diversity to ensure learning by all students)

**Students with IEP's and 504's**

- Will have a lab partner to aid in the completion of activities.
- Will have additional re-teaching opportunities with the collaborative resource teacher or instructional aide.
- Will receive fewer application type multiple choice questions on the summative assessment.

**Limited English Speaking Students**

- Will receive fewer vocabulary words.
- Will learn the Spanish and English word for the Spanish definitions for testing.
- Will have an English speaking student that is higher level as a lab partner and the help of an instructional aide

**Name** Cheryl May & Kari Jo Booe

**Grade Level** Middle School

**Date** Fall 2004

**Content/Subject** Life Science: Ecosystems

**Unit Title:** How does your ecosystem grow?

**Lesson:** Carrying Capacity and Limiting factors

**Objectives:**

Students will model carrying capacity of their lab stations. They will participate in “Oh Deer” activity to reinforce the carrying capacity of an organism and ecosystem and observe some of the limiting factors that control population.

**Targeted Standards for this Lesson:****➤ ➤ Academic Expectations-****2.3**

Students identify and analyze systems and the ways their components work together or affect each other.

**2.4**

Students use the concept of scale and scientific models to explain the organization and functioning of living and nonliving things and predict other characteristics that might be observed.

**➤ ➤ Program of Studies –****S-6-LS-5**

Students will investigate factors (e.g., resources, light, water) that affect the number of organisms an ecosystem can support.

**➤ ➤ Core Content –****SC-M-3.5.4**

The number of organisms an ecosystem can support depends on the resources available and the abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

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The number of organisms an ecosystem can support depends on the resources available and abiotic factors, such as quantity of light and water, range of temperatures, and soil composition. Given adequate biotic and abiotic resources and no disease or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

**Context:**

Students have previously learned about the components of a habitat. In this lesson, students will observe how limiting factors affect the components of habitat and how the number of components is related to the carrying capacity of a population.

**Resources/Materials:**

The Lion King movie, Deer Survival worksheet, playing area, Project Wild – Oh Deer!

### **Procedures:**

1. **Bell ringer:** How is a severe winter a limiting factor? What components of habitat are affected? For example, if you were a rabbit and KY has a bad winter describe the limiting factors and how the rabbit's components will be affected.
2. **Review:** Students will watch a short clip of the LION KING video, they will describe the habitat, pick out the various populations that make up the community gathered at the presentation of Simba. They will then discuss the limiting factors from the bell ringer to reinforce and review learning from the habitat lap sit lesson.
3. **Lesson:** While the students are reviewing they will be moved from their usual two students per lab desk to four students per desk. They must continue to face the front of the room and all must be able to write in their notebook as we answer the bell ringer. The four students will then be moved to eight at a lab desk. As the students become aware of the impossibility of using the desk and still remaining faced forward, they will be introduced to the vocabulary words; overpopulation, and carrying capacity. Students move back to the desk that has a carrying capacity of two. We will then discuss the sign inside of a boat that warns that the carrying capacity is 8. This will lead to a discussion of what happens if the carrying capacity is exceeded.
4. **Guided practice:** Students will be instructed on how to play "Oh, Deer!" We will go out to the field behind the school to participate in the activity to observe what happens to the population size if there are plenty of components available for the organism and what happens to the components when the carrying capacity has been exceeded.
5. **Independent practice:** Students will graph the results of the various years of population growth in the deer population. They will label limiting factors that were introduced to explain fluctuations in the population. They will answer questions that use the data collected to make the connection that amount of components and carrying capacity are related.
6. **End Review:** Students will discuss what could occur to a habitat if a new species was introduced to an area that did not have any natural predators.

### **Student Assessment:** (include formative and summative)

1. The notebooks are checked for correct bell ringer responses.
2. Student ability to identify a limiting factor that has affected their component of the habitat and identify this factor as abiotic or biotic will identify comprehension of previously taught vocabulary.
3. The independent responses on the worksheet will determine level of comprehension of the topic.  
Summative assessment will occur in the form of CTBS like multiple choice and one KCCT like open response on the final test.

**Adaptations:** (include ways you will address diversity to ensure learning by all students)  
**Students with IEP's and 504's**

- Will have a lab partner to aid in the completion of activities.
- Will have additional re-teaching opportunities with the collaborative resource teacher or instructional aide.
- Will receive fewer application type multiple choice questions on the summative assessment.

**Limited English Speaking Students**

- Will receive fewer vocabulary words.
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- Will have an English speaking student that is higher level as a lab partner and the help of an instructional aide.

**Name** Cheryl May & Kari Jo Booe

**Grade Level** Middle School

**Date** Fall 2004

**Content/Subject** Life Science: Ecosystems

**Unit Title** How does your Ecosystem Grow?

**Lesson Title:** Niches

**Objectives:**

Students will describe the habitat of an owl after looking at several pictures. During the lab, they will collect evidence of the owl's diet from the pellet and identify the skeletal pieces using the handouts. Based on their observations, they will make conclusions about the niche of the owl.

**Targeted Standards for this Lesson:**

➤ ➤ **Academic Expectations-**

**2.3**

Students identify and analyze systems and the ways their components work together or affect each other.

**5.1**

Students use critical thinking skills such as analyzing, evaluating, and comparing to solve a real-life situation.

➤ ➤ **Program of Studies –**

**S-6-LS-3**

Students will observe populations and determine the functions (e.g., decomposers, producers, consumers) they serve in an ecosystem.

➤ ➤ **Core Content –**

**SC-M-3.5.1**

A population consists of all individuals of a species that occur together at a given place and time. The physical factors with which they interact compose an ecosystem.

**SC-M-3.5.4**

The number of organisms an ecosystem can support depends on the resources available and the abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

➤ ➤ **National Standards –**

**NSS8\_3.19**

The number of organisms an ecosystem can support depends on the resources available and abiotic factors, such as quantity of light and water, range of temperatures, and soil composition. Given adequate biotic and abiotic resources and no disease or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

**NSS8\_3.17**

Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers--they make their own food. All animals, including humans, are consumers, which obtain food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.

**Context:** The students have previously studied habitats. In this lesson they will try to describe the niche of an owl by looking at his diet.

**Resources/Materials:** Owl pellets, forceps, probes, magnifying glass, and lab worksheets, PowerPoint presentation

**Procedures:** (include Beginning Review; Anticipatory Set; Concept Development; Guided Practice; Independent Practice; Ending Review)

1. **Bell ringer:** List the places you go in a week. What is your role at each of those places?
2. **Review:** Discuss bell ringer. Show PowerPoint presentation showing the habitats of owls. The term habitat will be reviewed by asking the students to describe the habitat of the owl.
3. **Lesson:** Discuss the term niche as related to the bellringer. Discuss how eating habits could be related to the job or niche you possess.
4. **Guided Practice:** After the students hypothesize about what owls eat, they will be given lab directions and they will review the items they will need to focus on for analyzing the lab.

5. **Independent Practice:** The students will complete the owl pellet lab and complete questions 4 and 5.
6. **End Review:** As a class we will discuss the findings from the lab and note that an owl can live in different habitats, but have one main niche.

**Student Assessment:**

1. Observations will be made during the review to check for individual learning of past topics.
2. The independent practice will give insight as to whether or not the students are able to apply their observations to answer questions about niches and the amount of food required to sustain an owl. Correct answers on the lab will determine the student's grade.
3. Summative assessment will occur on the unit test in the form of an open response.

**Adaptations:** (include ways you will address diversity to ensure learning by all students)  
Students with IEP's and 504's

- Will have a lab partner to aid in the completion of activities.
- Will have additional re-teaching opportunities with the resource teacher or an instructional aide.

Limited English Speaking Students

- Will receive fewer vocabulary words.
- Will learn the Spanish and English word for the Spanish definitions for testing.
- Will have matching type test that matches the English word to the Spanish definition.
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**Name:** Cheryl May & Kari Jo Booe

**Grade Level** Middle School

**Date** Fall 2004

**Content/Subject** Life Science: Ecosystems

**Unit Title** How does your Ecosystem Grow?

**Lesson** Forest Ecosystems

**Objectives:** Students will be moving to several stations that will be a more in depth observation of the forest ecosystem at Clay Hill.

**Targeted Standards for this Lesson:**

➤ ➤ **Academic Expectations-**

**2.4**

Students use the concept of scale and scientific models to explain the organization and

functioning of living and nonliving things and predict other characteristics that might be observed.

## **2.5**

Students understand that under certain conditions nature tends to remain the same or move toward a balance.

## **2.6**

Students understand how living and nonliving things change over time and the factors that influence the changes.

### ➤ ➤ **Program of Studies –**

#### **S-6-LS-3**

Students will observe populations and determine the functions (e.g., decomposers, producers, consumers) they serve in an ecosystem.

#### **S-6-LS-4**

Students will investigate energy flow in ecosystems.

#### **S-6-LS-5**

Students will investigate factors (e.g., resources, light, water) that affect the number of organisms an ecosystem can support.

### ➤ ➤ **Core Content –**

**SC-M-3.5.5** A population consists of all individuals of a species that occur together at a given place and time. All populations living together and the physical factors with which they interact compose an ecosystem.

**SC-M-3.5.6** Populations of organisms can be categorized by the function they serve in an ecosystem. Plants and some microorganisms are producers because they make their own food. All animals, including humans, are consumers, and obtain their food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.

**SC-M-3.5.7** For most ecosystems, the major source of energy is sunlight. Energy entering ecosystems as sunlight is transferred by producers into chemical energy through photosynthesis. That energy then passes from organism to organism in food webs.

**SC-M-3.5.8** The number of organisms an ecosystem can support depends on the resources available and the abiotic factors (e.g., quantity of light and water, range of temperatures, soil composition). Given adequate biotic and abiotic resources and no diseases or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

### ➤ ➤ **National Standards-**

#### **NSS8\_3.17**

Populations of organisms can be categorized by the function they serve in an ecosystem.

Plants and some microorganisms are producers--they make their own food. All animals, including humans, are consumers, which obtain food by eating other organisms. Decomposers, primarily bacteria and fungi, are consumers that use waste materials and dead organisms for food. Food webs identify the relationships among producers, consumers, and decomposers in an ecosystem.

### **NSS8\_3.18**

For ecosystems, the major source of energy is sunlight. Energy entering ecosystems as sunlight is transferred by producers into chemical energy through photosynthesis. That energy then passes from organism to organism in food webs.

### **NSS8\_3.19**

The number of organisms an ecosystem can support depends on the resources available and abiotic factors, such as quantity of light and water, range of temperatures, and soil composition. Given adequate biotic and abiotic resources and no disease or predators, populations (including humans) increase at rapid rates. Lack of resources and other factors, such as predation and climate, limit the growth of populations in specific niches in the ecosystem.

**Context:** The students have been exposed to lessons about populations and ecosystems. The students will go to Clay Hill Memorial and focus on the forest ecosystem with the realization that smaller ecosystems exist within this system. For example, the pond ecosystem is a part of the forest ecosystem.

### **Resources/Materials:**

Project Wild, Project Leopold, Project Learning Tree, compasses, push pins, rulers, grided area with beans, water sample kits, water quality analysis charts with insect identification keys.

### **Procedures:**

1. **Beginning review:** students will take a hike through the Clay Hill trails and review some of the previously taught concepts of types of consumers present, various populations as evident in trees and wildlife.
2. **Anticipatory set:** students will listen to a story telling of the Sassafras tree, which is a legend of how this tree came to have such a variety of leaves and became a part of this ecosystem.
3. **Lessons:** Students will participate in activities at various stations at Clay Hill; orienteering to locate a specific tree in the ecosystem, water quality to check the health of the ecosystem evident in water that has run into the streams, analysis of the water insects to show health of the ecosystem, population spacing and density counts, tree ring measurements to check for possible clues to the limiting factors that affected tree growth, tree identification and the uses of this population in the ecosystem, the story of H.T. Shrew, listen to and writing poetry about the ecosystem.

4. **Guided practice:** Students will have activities to perform with the instructor at the given station to learn about the specific aspect of the forest ecosystem.
5. **Independent practice:** Students will have worksheets to fill out after performing activities at their station.
6. **End review or follow up:** Students will have mini stations back at the school setting that are models of those seen at Clay Hill, they will teach the station to those that did not participate in that particular station.

**Student Assessment:**

1. Students will have a notebook with worksheets that will assess learning from the station they attended.
2. A follow up class will have students sharing what they learned at their station by teaching the lesson to students that did not get to attend this station.
3. Summative assessment will occur in the form of CTBS like multiple choice questions and one KCCT like open response on the unit test.

**Adaptations:**

**Students with IEP's and 504's**

- Will have a lab partner to aid in the completion of activities.
- Will have additional re-teaching opportunities with the collaborative resource teacher or instructional aide.

Will receive fewer application type multiple choice questions on the summative assessment.

**Limited English Speaking Students**

- Will receive fewer vocabulary words.
- Will learn the Spanish and English word for the Spanish definitions for testing.
- Will have an English speaking student that is higher level as a lab partner and the help of an instructional aide.